

Appl. No. 10/608,205
Reply to Office Action of April 15, 2004

In the Specification:

Please replace the paragraph beginning on page 4, line 18 and ending on page 5, line 7 with the following amended paragraph:

Referring first to Figure 3, the main body 12 will be described in greater detail. The main body 12 is formed of a molded or cast material which exhibits dimensional stability suitable for temperature cycling of a given application. Various metallic compounds, plastics or other composites are suitable for forming the main body 12. For example suitable materials include but are not limited to: Z-2, Z-5, Z-7, AL-60 63 or AL-60 61. A mating face 14 is formed on one end of the main body 12 and a rear end 16 is located opposite the mating face 14. A flange 15 is positioned near the rear end 16. A pair of opposing side surfaces 24 extend from the mating face 22 14 to the flange 15. A fiber receiving cavity 22 extends through the main body 12 between the side surfaces 24 from the mating face 14 back to the rear end 16. A pair of pin slots 18 are formed in the opposing side surfaces 24 and extend from the mating face 14 to the flange 15. The pin slots 18 are formed and located in precise relationship to the fiber receiving cavity 22. A retention member slot 20 extends rearward from the mating face 14 toward the flange 15 and is in communication with the pin slot 18.

Please replace the paragraph beginning on page 7, line 18 and ending on page 8, line 13 with the following amended paragraph:

Alignment of the optical fibers 40 within the fiber receiving cavity 22 will be described in greater detail with reference to Figure 6 and the progression shown in Figures 7-9. Referring first to Figure 7, once the optical fibers 40 are roughly aligned within the fiber receiving cavity

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22, the combs 38a and 38b are moved in the direction shown by the arrows in Figure 7 by sliding the comb mounts 64 within the guide slots 70 such that the plurality of optical fibers 40 are aligned in between the interlocking long and short teeth 43, 45. Next, as shown in Figure 8, the third and fourth combs 39a and 39b are moved towards each other in the direction shown by the arrows in Figure 8 such that the optical fibers 40 are positioned between the interlocking long and short teeth 43, 45. Reference surfaces 51, 53 are positioned to engage the locating pins 36 in order to precisely locate the optical fibers 40 with respect to the locating pins 36 and the pin slots 18. Once the optical fibers 40 are precisely positioned within the combs 38a, 38b, 39a, 39b as best shown in Figure 10, an encapsulant 26 is injected into the passageway 28 (Figure 1) through an encapsulant supply tube 72 and allowed to cool in order to fix the optical fibers 40 in precise location within the fiber receiving cavity 22. A suitable encapsulant is a metallic material, for example "Cerrocast", available from several metal suppliers, such as Canada Metal. It should be understood that other encapsulants are within the scope of the invention and may be substituted for the metallic encapsulant. The array ferrule 10 is then removed from the ferrule receiving opening 34. The optical fibers 40 are cleaved and the mating face 14 is polished by well known techniques in order to complete the array ferrule 10.